

DYLAN TERRY-DOYLE

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SUMMARY

MSc Complex Systems Modelling graduate with prior experience as a Senior Data Analyst and a first-class BSc in Economics. Through my academic and professional experience, I have acquired a strong understanding of mathematical and statistical modelling, machine learning, programming, and data analysis, complemented by effective communication and people skills. I am seeking an opportunity to leverage my skill set to develop creative and impactful research and analysis to gain insight into a broad spectrum of complex phenomena, fostering innovation and contributing to the advancement of multidisciplinary research initiatives.

TECHNICAL SKILLS

Software

Python (NumPy, SciPy, Pandas, SciKit-Learn, TensorFlow) • SAS • SQL • C++ • Stata • MATLAB • Git • Excel • Jira

Data Analysis

Mathematical and Statistical Modelling • Time Series Analysis • Machine Learning • Managing Big Data

Research & Planning

Gathering Data • Hypothesis Testing • Identifying and Resolving Problems • Report Writing

EDUCATION

King's College London: MSc Complex Systems Modelling

Sept. 2022 – Sept. 2023

- Merit.
- Dissertation: *Correlation Between Upstreamness and Downstreamness in Random Economies*.
- Relevant modules: Equilibrium Analysis of Complex Systems, Elements of Statistical Learning, Theory of Complex Networks, Probability Theory, Econophysics, and Mathematical Biology.

University of Sussex: BSc Economics

Sept. 2018 – June 2021

- First Class with Honours.
- Dissertation: *Implications of Zero Growth: Analysed with an Agent-Based Model*.
- Relevant modules: Applied Mathematics for Economists, Mathematical Statistics, Big Data & Economics, Applied Econometrics, Advanced Microeconomics, and Advanced Macroeconomics.
- Gladstone Memorial Trust Prize for the best dissertation in Economics, History, and Politics.
- Sussex Excellence Scholarship.

Cirencester College: A Levels

Sept. 2015 – July 2017

World Development A*, Economics A, and Psychology A.

Sir William Romney's: GCSEs

Sept. 2012 – July 2014

10 GCSEs A* – B, including English and Mathematics.

EXPERIENCE

Nationwide Building Society: Senior Data Analyst

Apr. 2022 – Sept. 2022

- Generated comprehensive reports leveraging SAS and SQL to distil complex data for non-technical users, providing in-depth insights into key performance indicators, and aiding in informed decision-making for the organisation.
- Created SQL queries to manage relational databases, query data, and perform data analysis to improve Nationwide's data warehousing.
- Spearheaded the development of a word2vec model in Python for classifying Nationwide's transactional data. The model significantly improved the reconciliation process between actual transactions and income/expenditure forms, identifying errors, contributing to enhanced data quality, and revealing key information regarding the accuracy of income/expenditure forms.
- Adopted agile working leading to improved workload management, enhanced teamwork, and streamlined task coordination. Demonstrating adaptability and a proactive approach in a dynamic work environment.

- Took on a leadership role by conducting interviews, mentoring, and training new team members, contributing to their professional development, and ensuring a smooth onboarding process.
- Built lasting relationships with other departments to understand key processes and liaised with senior management to effectively communicate the team's progress and workload.

Nationwide Building Society: Data Quality Analyst

Dec. 2021 – Apr. 2022

- Developed and implemented SAS reports to systematically test data quality compliance, ensuring adherence to standards and identifying areas for improvement. Played a crucial role in maintaining data integrity across key data quality dimensions.
- Implemented automation and streamlined data quality reporting, freeing valuable time for the implementation of new reports.
- Applied advanced statistical time series forecasting techniques to identify potential data quality breaches. Additionally providing valuable insights into the future evolution of key internal and external indicators, enabling proactive decision-making by senior management.
- The above project led to my promotion to the role of Senior Analyst after 5 months, the fastest progression my manager had given.
- Engaged with various departments to improve understanding of data quality measures associated with specific datasets and processes. Facilitating cross-functional communication and enhancing overall data quality standards and measurements.

University of Sussex: Junior Research Associate

June 2020 – Oct. 2020

- Conceptualised, designed, and programmed an agent-based model in Python to analyse the implications of zero productivity growth on a theoretical economy.
- This model contributed to a deeper understanding of the economic consequences of zero productivity growth, giving key insights into the impact on unemployment, inflation, market share volatility, and real GDP growth volatility.
- Formulated and executed an original research proposal, conducting a comprehensive literature review to ensure the study's foundation was based on current knowledge. Demonstrating a commitment to academic rigour and a capacity for independent research.
- The research was recognised for its originality and applicability for use in policymaking, resulting in selection for publication by the advisor.

VOLUNTEERING

Journeyman UK: Research Associate

Sept. 2018 – Present

- Established a research group within Journeyman UK to better understand the efficacy and impact the charity has on the wellbeing and personal effectiveness of the participants, this research is now crucial to Journeyman UK when promoting their organisation and applying for funding.
- Designed and implemented an ongoing series of questionnaires, carried out the data collection process and performed data analysis to display key insights.
- This research was so impactful it was used to present Journeyman UK at the 2018 Male Psychology Conference at UCL.

Journeyman UK: Youth Mentor

Sept. 2018 – Present

- Worked with in small groups as a volunteer youth mentor to help develop life skills and tackle the issues faced by adolescent boys, such as absent fathers, harmful behaviour, emotional denial, relationships, and disengagement.
- Helped to deliver the annual large scale personal development camp for teenage boys run by Journeyman UK, running processes and taking on responsibilities as a team leader.

INTERESTS

Passionate about economics, mathematics, AI, and computing. Engages in personal programming projects, currently translating a macroeconomic agent-based model from Python to C++. Enjoys activities such as going to the gym, cycling, and building bikes.